

Claims 3 and 4 were rejected under 35 U.S.C. § 103(a) as obvious and unpatentable over the reference PERSSON (US 5,442,635) in view of the reference OHTA (US 5,878,277), as applied to the other claims, further in view of the reference GALYAS ET AL (US6,206,157).

REPLY:

Claim 5 has been amended to remove the objectionable phrase "capable of" and impose a positive limitation on the "control means", so that it is now submitted to be in proper statutory form in defining the invention.

Regarding the art rejections, to begin with, it should be seen that Claim 1 is directed to a method of operating a time division multiple access (TDMA) radio system wherein uplink and downlink transmissions between a mobile station and a base station are made in separate TDMA frames, and wherein a **greater number** of time slots is allocated in each **downlink** TDMA frame (i.e., direction base station -> mobile station) than in each uplink (direction mobile station -> base station) TDMA frame. Claim 5 defines a system with a similar feature.

In the prior art, it is noted that the PERSSON teaching also relates to a TDMA radio system in which transmissions are made between mobile and base stations. However, as the grounds for rejection recognize, PERSSON does not disclose or suggest any desire to have a greater number of time slots allocated in each downlink TDMA frame than in each uplink TDMA frame. This is evidenced, for example, at Col. 5, lines 25 to 30, where it is stated that a transmission frame structure is provided including the **same** number of transmission time slots as reception time slots. Thus, PERSSON teaches nothing more pertinent to Applicants' invention than a TDMA radio system.

In an attempt to fill the gap for the lack of a showing of a greater number of time slots allocated in each downlink TDMA frame than in each uplink TDMA frame, the Examiner cites a new reference OHTA and contends that it would have been obvious to combine OHTA with PERSSON in order to achieve the Applicants' invention.

However, it should be seen that OHTA's teaching is directed to a

completely different field of technology from that of Applicants' invention and that of PERSSON. The latter two teachings relate to a TDMA radio system of the mobile communication world in which wireless transmissions are made between **mobile and base stations**. OHTA's teaching is directed and restricted to a **cable network** (see, Col. 3, lines 66 to 67, a CATV network) where the transmissions, such as for cable TV, fax/PC, telephone, are made via cable connections and where **no** TDMA transmissions to and from mobile stations are involved. The cable environment of OHTA is essentially so different from the mobile environment of the Applicants' invention and of PERSSON, that one skilled in the technology of the mobile environment would not normally look to the cable environment to find OHTA when trying to solve a problem relating to the allocation of time slots in a TDMA air interface between a base station and mobile station.

Furthermore, even if OHTA's teaching was found, OHTA offers a solution relating to the basic idea in the cable network wherein, between a central station and terminal station, a particular frequency band is allocated for dedicated communication channels and another frequency band is allocated for common communication channels (see Abstract). Figs. 2A, 2B, and 2C, referred to by the Examiner, only show the allocation of the **frequency bands**. They do **not** show allocation of **time slots**. OHTA's Fig. 10 does disclose time slots, but, there is no discussion or suggestion of a **frame level solution** in which a **greater number of time slots** would be allocated in **each downlink** TDMA frame **than in each uplink** TDMA frame. Therefore, even if a skilled person were to attempt to combine the teaching of PERSSON with that of OHTA, it is not obvious as to how he would, if in fact he could, arrive at a combination approaching the scope of the definitions of Applicants' Claims 1 and 5 and their dependent claims.

In addition, it is noted that the Examiner's reference to the STDD and PSTDD techniques on Page 5 of the Office Action is without any basis, insofar, at least, as OHTA is concerned, since there is no disclosure in OHTA relating to these techniques.

As to the rejection of dependent Claims 3 and 4, on PERSSON and OHTA taken with GALYAS, it is asserted that the failure of the former two teachings to provide an approach to Applicants'

invention cannot be overcome by the limited pertinence teaching of GALYAS.

In conclusion, it seems to Applicants, based on the facts explained above, that the Examiner's rejections have been made with impermissible hindsight. In order to properly support an obviousness rejection, it is incumbent upon the Examiner to first convincingly show where all features of the invention are clearly found in cited prior art and then show how a skilled person would have been led, by the teachings in that cited art, to combine those teachings in such manner as to achieve the claimed invention (see MPEP § 706.02(j)). It is asserted that the teachings of the cited art would not obviously lead one of skill to arrive at a combination approaching the scope of the definitions of Applicants' Claims 1 and 5 and their dependent claims.

Accordingly, for the reasons set forth above, a prompt reconsideration and withdrawal of the claim rejections, allowance of the claims, and passage to issue of this application is respectfully solicited.

A one-month extension of time to respond to the outstanding Office Action is hereby petitioned, and a check in the amount \$110.00 is enclosed to cover the fee therefor.

Any further fees for the entry of this Amendment should be deducted from Deposit Account No. 16-1350.

It is noted that the formal drawings have been approved so that no further drawings need be submitted upon allowance of the case.

Respectfully submitted,

Thomas P. Dowd  
Thomas P. Dowd  
Reg. No.: 24,586

April 29, 2002  
Date

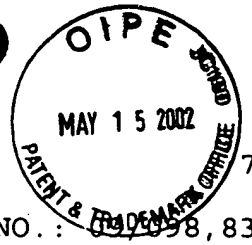
Perman & Green, LLP  
425 Post Road  
Fairfield, CT. 06430

Telephone: (203) 259-1800  
Facsimile: (203) 255-5170  
Customer No. 2512

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Clair L. Mian      5/7/02  
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Application SERIAL NO.: 09/098,832

**Marked-up Claim**

5. (Amended) A time division multiple access (TDMA) radio system having multi-slot capabilities and utilising half-duplex transmission/reception where uplink and downlink user data transmissions between a mobile station and a base station are made in separate TDMA features, the system comprising control means for [capable of] allocating a greater number of time slots in each downlink TDMA frame than in each uplink TDMA frame, to said mobile station.